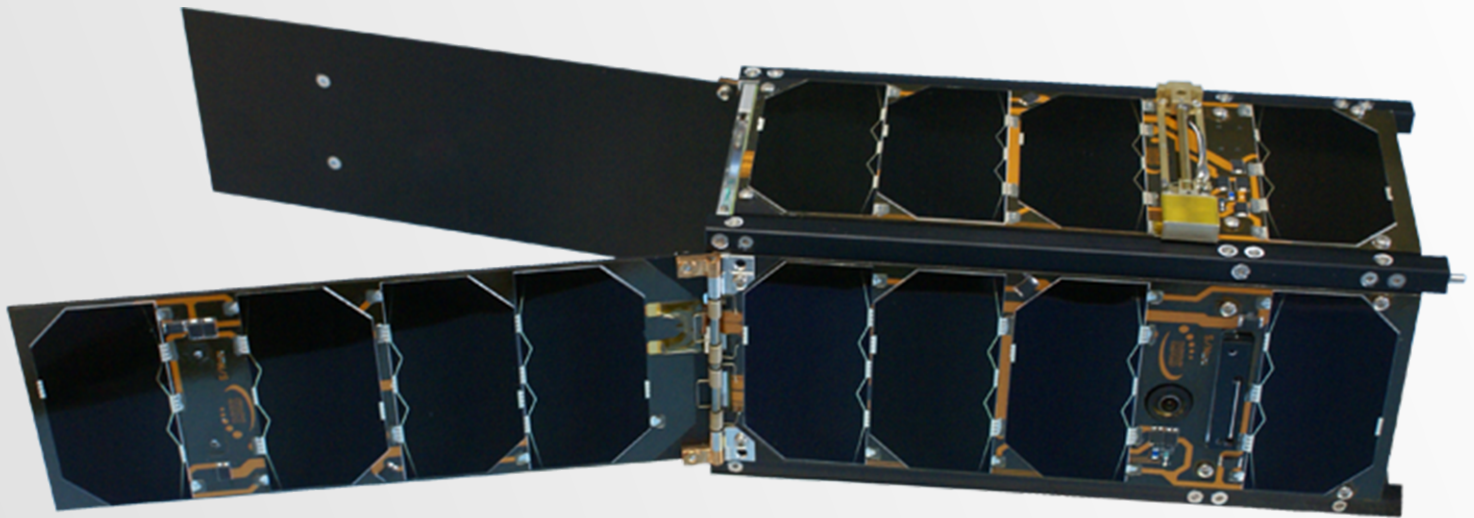


# Solar Panels

Flight heritage since 2013



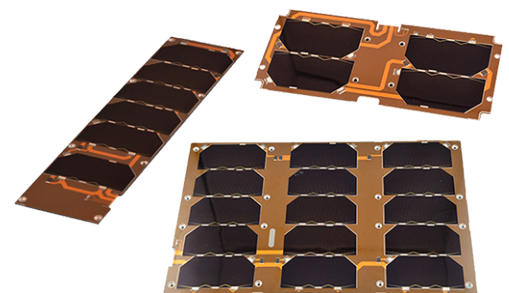
CubeSat NanoSat Small Sat	Highly customizable	30% cell efficiency
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## DESCRIPTION

ISIS offers customized CubeSat solar panels and arrays for standardized prices across a wide range of sizes. Body mounted panels and deployable arrays are supported for 1U to 12U sizes. As most satellite missions are special, ISIS solar panel solution takes into account accommodations for sensors, apertures, etc. Our innovative design with an aluminium substrate with a flex-PCB overlay for the cells, allows for most mission specific customization without additional non-recurring engineering charges. Our expertise allows us to carry out custom work from concept design to production to meet your needs and requirements.

## FEATURES

- GaAs Triple-junction solar cells from AZUR Space
- Body mounted on Aluminium substrate
- Includes sun presence sensors and temperature sensors
- Protective cover and harnessing included
- Manufactured according to space standards
- Crack and flash tests provided with characterisation
- Compatible with ISIS, GomSpace and Pumpkin products
- Compliant to CubeSat standard
- Applications: 1U/2U/3U CubeSats & 6U/12U/24U Nanosats



6U Solar Panels set

## PERFORMANCE

- Peak power delivered:
  - 1U: 2.3 W
  - 2U: 4.6 W
  - 3U: 6.9 W
  - 6U: 17 W
- Supply voltage: 3V (5V and 8V on demand)
- Cell material: GaAs
- Cell efficiency: 30%



Protective cover

## PRODUCT PROPERTIES

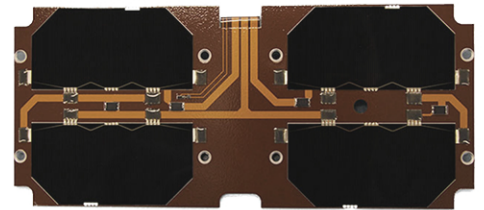
- Mass (exact mass depends on configuration)
  - 1U: 50g
  - 2U: 100g
  - 3U: 150g
  - 6U: 300g
- Panel thickness
  - Top/Bottom: 1.8mm
  - Side panel: 2.5mm
- Cover glass included
- Interconnector: Silver plated Kovar
- Interfaces:
  - Custom flat inline omnetics (2mm height)
  - Raychem Spec44 cables (AWG26)
  - Harness included
- Operating Temperature: -40 to +125°C
- Radiation Tolerance: 2 years minimum in LEO



Complete set of solar panels

## CONFIGURATIONS

- Top/Bottom 1U panels
- On top of the ISIS AntS Antenna System
- 1U/2U/3U/6U configuration
- Deployable Panels (optional hold down release mechanism)
- Dummy panels with sensors without cells
- Custom configurations available on request



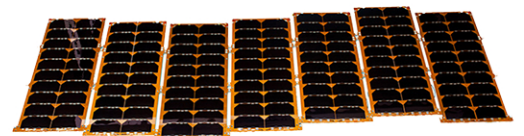
2U solar panels for CubeSats

## QUALIFICATION AND ACCEPTANCE TESTING

Test	QT	AT
Functional	✓	✓
Vibration	✓	-
Mechanical Shock	✓	-
Thermal Cycling	✓	-
Thermal Vacuum	✓	-
Total Ionizing Dose	-	-
Continuity Isolation	✓	✓
Flasher Test	✓	✓
Solar Cells crack test	✓	✓

\*QT is performed on the design/qualification model

\*AT is performed on the unit to be shipped



Custom solar panels

This document is subject to change without notice. Latest information is on [www.isispace.nl](http://www.isispace.nl)



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